

Comments regarding
Dietary Guidelines for Americans

Submitted to the
Dietary Guidelines Advisory Committee,
U.S. Department of Health and Human Services, and
U.S. Department of Agriculture

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The Center for Science in the Public Interest (CSPI) respectfully submits to the Dietary Guidelines Advisory Committee (DGAC), the U.S. Department of Health and Human Services (DHHS), and the U.S. Department of Agriculture (USDA) recommendations regarding the bulletin *Nutrition and Health: Dietary Guidelines for Americans*.

CSPI is a non-profit consumer education and advocacy organization that since 1971 has been working to improve the public's health through better nutrition and safer food. CSPI's work is supported primarily by its 800,000 members and subscribers to its *Nutrition Action Healthletter*, the nation's largest circulation health newsletter. CSPI does not accept any government or corporate funding.

CSPI's work was instrumental in passage of the Nutrition Labeling and Education Act of 1990 and the Alcoholic Beverage Labeling Act of 1988. Other initiatives include studies of the nutritional quality of restaurant foods, advocating trans fat labeling on packaged foods, and campaigns to promote low-fat milk consumption, improve school foods, stop misleading food and alcohol advertising, enforce food safety laws, and improve alcoholic-beverage labeling.

Enclosed are eight sets of comments regarding the following guidelines:

- Nutrient Adequacy
- Sodium
- Fibers
- Whole Grains
- Added Sugars
- Energy Balance
- Fatty Acids
- Restaurant Foods
- Food Dyes and Behavior
- Ethanol

Our comments are summarized in the oral testimony which will be presented to the committee on January 29, 2009, which is enclosed.

For more information or questions regarding these comments please contact Alexandra Lewin, Ph.D. at 202.777.8351 or alewin@cspinet.org.

Comments by the Center for Science in the Public Interest on Nutrient Adequacy

The Center for Science in the Public Interest supports the current guideline urging the public to “consume a variety of nutrient-dense foods and beverages within and among the basic food groups” and to “meet recommended intakes within energy needs by adopting a balanced eating pattern, such as the USDA Food Guide or the DASH Eating Plan.”

I. Cite OmniHeart instead of DASH diet.

The 2005 Guidelines uses both USDA’s Food Guide and the DASH study to advise readers about the number of servings to eat from each food group. However, in the OmniHeart study, researchers pitted the initial DASH diet against similar diets that were higher in either protein or unsaturated fat.¹ Compared to the initial (higher-carb) diet, the higher-protein and higher-unsaturated fat diets led to lower triglyceride levels, and the higher-unsaturated fat diet also maintained HDL (“good”) cholesterol more than the other two diets (See Attachment: “Good Carbs, Good Protein, Good Fats: Which is Better for your Heart?” NAH, May 2007).

Although it might be too complicated to inform readers about all 3 diets, it would certainly be reasonable to let readers know that a diet that is higher in protein or unsaturated fats would be equally, if not more, healthful than the higher-carb diet. Based on changes in blood pressure and lipids, the higher-carb diet would reduce the 10-year risk of heart disease by 20%, while the higher-protein and higher-unsaturated-fat diets would reduce the risk by 30%.

II. Vegetarian diets

The 2005 edition of Dietary Guidelines for Americans includes (page 9) but a single sentence alluding to the health merits of a vegetarian diet: “Vegetarians of all types can achieve recommended nutrient intakes through careful selection of foods.” Yet, literature—including clinical and epidemiologic studies—demonstrates that vegetarians can not only “achieve recommended nutrient intakes” but enjoy good health (notwithstanding that many vegetarians consume dairy products rich in saturated fat) than the average person, the DGAC should encourage healthy vegan, lacto-ovo, and other forms of vegetarian diets. Because people needn’t eat purely vegetarian diets (except for ethical reasons), the DGA throughout should emphasize the benefits of a “more plant-based diet.” We have attached an excerpt from CSPI’s book, *Six Arguments for a Greener Diet*, which summarizes the research and includes literature citations.²

III. Broaden the advice to get sufficient vitamin D.

The 2005 Dietary Guidelines urges only “special groups” (i.e., the elderly, dark-skinned people, and those “exposed to insufficient ultraviolet radiation,” such as people who are

housebound) to get “higher intakes of vitamin D.” In fact, anyone who lives in the northern half of the United States gets too little UV light to make sufficient vitamin D in the winter. Furthermore, research now suggests that adequate intakes of vitamin D may reduce the risk falls, fractures, diabetes, and some cancers (Attachment: “Are You Deficient?” NAH, December 2006).

Moreover, the Guidelines suggests that milk, fortified orange juice, and supplements are the only sources of vitamin D. Vitamin D is now added to some brands of yogurt, bread, cereal, and other foods, as well as a number of calcium supplements.

(Note: the text should give vitamin D levels for only 1 cup of milk, not 3 cups. It is unrealistic to assume that the average person drinks 3 cups of milk each day, and it is confusing for readers to see vitamin D levels of 3 cups of milk but only 1 cup of orange juice.)

IV. The Dietary Guidelines should, in addition, stress that the following are not acceptable substitutes for nutrient-dense, unprocessed or lightly processed foods:

Fortified “junk foods.”

The Food and Drug Administration has long prohibited companies from fortifying foods of low nutritional value with vitamins or materials in order to market them as healthy. This is the so-called “jelly bean rule.” Companies may not make an expressed or implied health claim for any food with added nutrients which does not have in a serving at least 10 percent of the Reference Daily Intake or the Daily Reference Value for vitamin A, vitamin C, iron, calcium, protein, or fiber before a nutrient is added.³

Food and beverage manufacturers are, unfortunately, ignoring this policy. In an effort to cash in on the “functional food” trend, companies are increasingly adding vitamins, minerals, and herbs to soft drinks, water, energy drinks, candy, and other products which would have little or no nutritional value without the fortification.

The Dietary Guidelines should emphasize that unprocessed or lightly processed foods from the basic food groups contain hundreds of potentially beneficial compounds that cannot be matched by fortified waters, drinks, or foods which may have only one or a few isolated nutrients added to them.

Multivitamin and mineral supplements.

The Dietary Guidelines should stress that multivitamins, whether in the form of pills or food products, should be used, if at all, to supplement -- and not to replace -- food. That’s because dietary supplements generally contain only those few nutrients proven to be necessary to prevent deficiency diseases, while foods contain a wide variety of potentially beneficial compounds. (And many multivitamin products don’t even contain all of the essential nutrients.)

Moreover, ingesting too much of a particular nutrient is much more likely from dietary supplements than it is from unfortified foods. For example, there is concern that large amounts of folic acid, obtainable only from fortified foods and dietary supplements, may increase the risk of breast cancer in women.⁴ Large amounts of beta-carotene cause lung cancer in smokers⁵ and large amounts of vitamin E, beta-carotene, or vitamin E may increase mortality.⁶

Herbal supplements.

Herbal supplements contain little, if any, nutrients and so have no important place in a healthy diet. Consumers may choose to use them because they think these products may help to preserve their health or help prevent or treat a disorder, but few of the claims made for these products have been substantiated by good clinical trials and, indeed, most such trials have found the supplements *not* to be effective.

Antioxidants.

Plant foods naturally contain antioxidants, and that may well be one of the reasons why plant-based diets are associated with health benefits.⁷ But antioxidants such as beta-carotene, vitamin C, and vitamin E, taken either as pills or added as ingredients to foods, have usually not been linked to health benefits, either in healthy people or in those with a health condition.⁸ Worse, as noted above, large amounts of beta-carotene and vitamin E have consistently produced a slightly higher death rate in those who take them.⁹

The Dietary Guidelines should emphasize that foods to which antioxidants are added are not satisfactory replacements for foods that naturally contain antioxidants and that large amounts of antioxidants may be harmful, not beneficial.

Fatty acids.

The two major omega-3 fatty acids found in fish and seafood, docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), have been shown to reduce the risk of death from coronary heart disease.¹⁰ The Dietary Guidelines recognize their value by recommending that “most fats” come “from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils.”

However, the other major omega-3 fatty acid in the diet, alpha linolenic acid (ALA), which is found in plant foods, has not consistently been linked to the same heart-healthy benefits as DHA and EPA.¹¹

Unfortunately, some food manufacturers exploit this conflation of beneficial and innocuous fatty acids by adding the cheaper and more convenient ALA to their foods, and then label and advertise that their products “contain omega-3” without disclosing that this is not the omega-3 that has been established as especially good for their hearts.

The Dietary Guidelines should remind consumers that not all omega-3 fats are the same and that ALA is not a satisfactory substitute for DHA and EPA. The DGAC might well encourage the Department of Health and Human Services to stop the deceptive label claims.

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- 1 Appel LJ, et. al. Effects of protein, monounsaturated fat, and carbohydrate intake on blood pressure and serum lipids: results of the OmniHeart randomized trial. *JAMA*. 2005 Nov 16;294(19):2455-64.
- 2 Jacobson, MF. Six Arguments for a Greener Diet. Washington, DC (Center for Science in the Public Interest). 2006.
- 3 21 CFR 101.14 (e) (6)
- 4 Nutrition Action Healthletter June 2008, page 1.
- 5 *Cancer*. 2008 Jul 1;113(1):150-7.
- 6 *Cochrane Database Syst Rev*. 2008 Apr 16;(2):CD007176.
- 7 *Nutr Clin Pract*. 2008 Oct-Nov;23(5):468-76.
- 8 *J Natl Cancer Inst*. 2009 Jan 7;101(1):14-23.; *JAMA*. 2008 Nov 12;300(18):2123-33.
- 9 *Cochrane Database Syst Rev*. 2008 Apr 16;(2):CD007176.
- 10 *Curr Atheroscler Rep*. 2008 Dec;10(6):503-9
- 11 *Heart*. 2006 Feb;92(2):166-9.
- 12 Fields LE, Burt VL, Cutler JA, et al. The burden of adult hypertension in the United States 1999 to 2000: a rising tide. *Hypertension*. 2004; 44:398-404.
- 13 Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003; 289:2560-72. National Heart, Lung, and Blood Institute. NHLBI issues new high blood pressure clinical practice guidelines. News release. May 14, 2003.
- 14 Vasan RS, Beiser A, Shisadri S. Residual lifetime risk for developing hypertension in middle-aged women and men. *JAMA*. 2002; 287:1003-10.
- 15 National Center for Health Statistics. *Health, United states, 2004, With Chartbook on Trends in the Health of Americans*. Hyattsville, MD, 2004.
- 16 Zhou BF, Stamler J, Dennis B, et al. Nutrient intakes of middle-aged men and women in China, Japan, United Kingdom, and United States in the late 1990s: The INTERMAP study. *J Hum Hypertens*. 2003; 17:623-30. Kumanyika SK, Cook NR, Cutler JA, et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. *J Hum Hypertens*. 2005; 19:33-45.
- 17 Havas, S, Rocella EJ, Lenfant C. Reducing the public health burden from elevated blood pressure levels in the United States by lowering intake of dietary sodium. *Am J Pub Health*. 2004; 94:19-22. Other studies, when extrapolated to the United States, also indicate that halving sodium would save 100,000 to 200,000 lives per year: He FJ, MacGregor GA. How far should salt intake be reduced? *Hypertension*. 2003; 42:1093-9. (CSPI averaged the percentage reductions based on systolic and diastolic blood pressures.)

Tuomilehto J, Jousilahti P, Rastenyte D, et al. Urinary sodium excretion and cardiovascular mortality in Finland: a prospective study. *Lancet*. 2001;357:848–51.

18 Palar, K, Sturm, R. The Benefits of Reducing Sodium Consumption in the US Adult Population. Rand Health, Academy Health Annual Research Meeting Presentation, June 9, 2008.

19 Jacobson MF. Sodium content of processed foods: 1983–2004. *Am J Clin Nutr*. 2005;81:941a-2a.

20 Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003; 289:2560-72.

21 Cook NR, Cutler JA, Obarzanek E, et al. Long-term effects of dietary sodium reduction on cardiovascular disease outcomes: Observational follow-up of the trials of hypertension prevention (TOHP). *BMJ*. 2007; 334: 885-93.

22 Tzemos N, et al. Adverse cardiovascular effects of acute salt loading in young normotensive individuals. *Hypertension*. 2008 Jun;51(6):1525-30.

23 Chang HY, Hu YW, Yue CS, et al. Effect of potassium-enriched salt on cardiovascular mortality and medical expenses of elderly men. *Am J Clin Nutr*. 2006 Jun;83(6):1289-96.

24 Labarthe, D. (2009, January). Presentation at the IOM Meeting on Strategies to Reduce Sodium Intake, Washington, D.C.

25 Institute of Medicine: “Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate.” Washington DC: National Academy Press, p 271, 2004.

26 Institute of Medicine: “Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate.” Washington DC: National Academy Press, p 307, 2004.

27 NHANES, 2001-02. “What We Eat in America.” <http://www.ars.usda.gov/foodsurvey>

28 Feng J. He; Graham A. MacGregor. Importance of Salt in Determining Blood Pressure in Children. *Hypertension*. 2006; 48:861.

29 Wootan M, Batada A, Marchlewicz E. Kids Meals: Obesity on the Menu. Center for Science in the Public Interest: Washington, D.C.; 2008.

30 Jacobson MF, Hurley J. Restaurant Confidential. New York: Workman, 2002.

31 Mattes RD, Donnelly D. Relative contributions of dietary sodium sources. *J Am Coll Nutr*. 1991;10:383–93.

32 The actual level is probably close to 4,000 mg. Zhou BF, Stamler J, Dennis B, et al. Nutrient intakes of middle-aged men and women in China, Japan, United Kingdom, and United States in the late 1990s: The INTERMAP study. *J Hum Hypertens*. 2003; 17:623–30. Kumanyika SK, Cook NR, Cutler JA, et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. *J Hum Hypertens*. 2005;19:33–45.

33 Grabitske HA, Slavin JL. Low-digestible carbohydrates in practice. *J Am Diet Assoc*. 2008 Oct;108(10):1677-81.

34 Food and Nutrition Board. Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids (National Academies Press, Washington, DC) 2005. p. 362.

-
- 35 Elaine Wong, "Fiber Being Pitched As Tasty, Sexy Even." *Brandweek*. Jan. 17, 2009.
- 36 Home and Garden Bulletin No. 252. USDA. Aug. 1992, slightly revised Oct. 1996. p. 17.
- 37 WHO-FAO. Diet, Nutrition and the Prevention of Chronic Diseases. WHO Technical Report Series 916. 2003 (www.fao.org/docrep/005/AC911E/AC911E00.HTM (accessed Jan. 10, 2009)).
- 38 Dietary Guidelines for Americans. www.health.gov/dietaryguidelines/dga2005/document/html/appendixA.htm (accessed Jan. 19, 2009). Appendix A-3.
- 39 Letter to Secretary Tommy Thompson, April 15, 2003.
- 40 Melanson KJ, Angelopoulos TJ, Nguyen V, et al. High-fructose corn syrup, energy intake, and appetite regulation. *Am J Clin Nutr*. 2008;88(suppl):1738S-44S.
- 41 Bray GA. How bad is fructose? *Am J. Clin Nutr*. 2007;86:895-6.
- 42 Havel PJ. Dietary fructose: implications for dysregulation of energy homeostasis and lipid/carbohydrate metabolism. *Nutr Rev*. 2005;63:133-57.
- 43 Stanhope KL, Havel PJ. Endocrine and metabolic effects of consuming beverages sweetened with fructose, glucose, sucrose, or high-fructose corn syrup. *Am J Clin Nutr*. 2008 Dec;88(6):1733S-7S.
- 44 ERS production data for HFCS-42 and HFCS-55, which the Corn Refiners Association says account for virtually all HFCS and crystalline fructose, indicate that the weighted-average sugar content of HFCS is almost exactly 50% glucose and 50% fructose. (HFCS-42: 3,660 (1,000 short tons, dry weight); HFCS-55: 5479 (1,000 short tons, dry weight))
- 45 Some products are sweetened with pure fructose (and sometimes bear labels claiming "No HFCS").
- 46 CSPI petition to FDA. July 13, 2005. www.cspinet.org/new/pdf/final_soda_petition.pdf.
- 47 Analyses by Environ. Calculations conducted in September 1998 for the Center for Science in the Public Interest by Environ, Inc., Arlington, Va., based on USDA CSFII 1994-96 Data Tables.
- 48 Giammattei J, Blix G, Marshak HH, et al. Television watching and soft drink consumption. *Arch Pediatr Adolesc Med*. 2003;157:882-6.
- 49 Troiano RP, Briefel RR, Carroll MD, Bialostosky K. Energy and fat intakes of children and adolescents in the United States: data from the National Health and Nutrition Examination Surveys. *Am J Clin Nutr*. 2000;72(suppl):1343S-53S.
- 50 Ludwig DS, Peterson KE, Gortmaker SL. Relationship between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet*. 2001;357:505-8.
- 51 Berkey CS, Rockett HR, Field AE, et al. Sugar-added beverages and adolescent weight change. *Obes Res*. 2004;12:778-88.
- 52 Some of the same researchers subsequently found that weight gain in the same cohort of children was also associated with milk consumption. Berkey CS, Rockett HRH, Willett WC, et al. Milk, dairy fat, dietary calcium, and weight gain. *Arch Pediatr Adolesc Med*. 2005;159:543-550.
- 53 Schulze MB, Manson JE, Ludwig DS, et al. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. *JAMA*. 2004;292:927-34.

54 Apovian CM. Sugar-sweetened soft drinks, obesity, and type 2 diabetes. *JAMA*. 2004;292:978-9.

55 Palmer JR, Boggs DA, Boggs MS, et al. Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. *Arch Intern Med*. 2008;168:1487-92.

56 James J, Thomas P, Cavan D, et al. Preventing childhood obesity by reducing consumption of carbonated drinks: cluster randomized controlled trial. *BMJ*. 2004;328:1237.

57 Raben A, Vasilaras TH, Møller AC, et al. Sucrose compared with artificial sweeteners: different effects on ad libitum food intake and body weight after 10 wk of supplementation in overweight subjects. *Am J Clin Nutr*. 2002;76:721-9. An earlier, shorter study that compared soft drinks containing aspartame and high-fructose corn syrup found similar results. Tordoff MG, Alleva AM. Effect of drinking soda sweetened with aspartame or high-fructose corn syrup on food intake and body weight. *Am J Clin Nutr*. 1990;51:963-9.

58 Ebbeling CB, Feldman HA, Osganian SK, et al. Effects of decreasing sugar-sweetened beverage consumption on body weight in adolescents: a randomized, controlled pilot study. *Pediatrics*. 2006;117:673-80.

59 Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. *Am J Clin Nutr*. 2006 Aug;84(2):274-88.

60 Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *Am J Pub Health*. 2007;97(4):667-75.

61 Striegel-Moore RH, Thompson D, Affenito SG, et al. Correlates of beverage intake in adolescent girls: the National Heart, Lung, and Blood Institute Growth and Health Study. *J Pediatr*. 2006;148:183-7.

62 Dietz WH. Sugar-sweetened beverages, milk intake, and obesity in children and adolescents. *J Pediatr*. 2006;148:185-7.

63 Van Dam RM, Seidell JC. Carbohydrate intake and obesity. *Eur J Clin Nutr*. 2007;61 (suppl 1):S75-S99.

64 Mann J, Cummings JH, Englyst HN, et al. FAO/WHO scientific update on carbohydrates in human nutrition: conclusions. *Eur J Clin Nutr*. 2007;61 (suppl 1):S132-S7.

65 Committee on Prevention of Obesity in Children and Youth, Institute of Medicine. Fact Sheet, Parents can play a role in preventing childhood obesity. Sept. 2004.

66 DiMeglio DP, Mattes RD. Liquid versus solid carbohydrate: effects on food intake and body weight. *Intern J. Obesity*. 2000;24:794-800.

67 DeCastro JM. The effects of spontaneous ingestion of particular food or beverages on the meal pattern and overall nutrient intake of humans. *Physiol Behav*. 1993;53:1133-44. Mattes RD. Dietary compensation by humans for supplemental energy provided as ethanol or carbohydrate in fluids. *Physiol Behav*. 1996;59:179-87. Rolls BJ, Kim S, Federoff IC. Effects of drinks with sucrose or aspartame on hunger, thirst and food intake in men. *Physiol Behav*. 1990;48:19-26.

68 2005 Dietary Guidelines Advisory Committee Report, Part D, Section 2, pp. 18-9.

69 Almiron-Roig E, Drewnowski A. Hunger, thirst, and energy intakes following consumption of caloric beverages. *Physiol Behav*.

2003;79:767-73. DellaValle DM, Roe LS, Rolls BJ. Does the consumption of caloric and non-caloric beverages with a meal affect energy intake? *Appetite*. 2005;44:187-93. Such clinical studies cannot evaluate whether the drinking of particular beverages (because of their cultural uses, sizes, or tastes) changes what solid foods a person eats.

70 Ventura KA, Loken E, Birch LL. Risk profiles for metabolic syndrome in a nonclinical sample of adolescent girls. *Pediatrics*. 2006;118:2434-42.

71 Yoo S, Nicklas T, Baranowski T, et al. Comparison of dietary intakes associated with metabolic syndrome risk factors in young adults: the Bogalusa Heart Study. *Am J Clin Nutr*. 2004;80:841-8.

72 Dhingra R, Sullivan L, Jacques PF, et al. Soft drink consumption and risk of developing cardiometabolic risk factors and the metabolic syndrome in middle-aged adults in the community. *Circulation*. 2007;116:480-8.

73 Palmer JR, Boggs DA, Boggs MS, et al. Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. *Arch Intern Med*. 2008;168:1487-92.

74 Docket No. FDA-2008-N-0040

75 Tucker KL, Morita K, Qiao N, et al. Colas, but not other carbonated beverages, are associated with low bone mineral density in older women: The Framingham Osteoporosis Study. *Am J Clin Nutr*. 2006;84: 936-42. Whiting SJ, Healey A, Psiuk S. Relationship between carbonated and other low nutrient dense beverages and bone mineral content of adolescents. *Nutr Res*. 2001;21:1107-15. Wyshak, G. Teenaged girls, carbonated beverage consumption, and bone fractures. *Arch Pediatr Adolesc Med*. 2000;154:610-3.

76 Saldana TM, Basso O, Darden R, et al. Carbonated beverages and chronic kidney disease. *Epidemiology*. 2007;18:501-6.

77 Choi HK, Curhan G. Soft drinks, fructose consumption, and the risk of gout in men: prospective cohort study. *BMJ* published online Jan 31, 2008;doi:10.1136/bmj.39449.819271.BE [accessed Feb. 4, 2008].

78 Choi JW, Ford ES, Gao X, et al. Sugar-sweetened soft drinks, diet soft drinks, and serum uric acid level: the Third National Health and Nutrition Examination Survey. *Arthritis Rheum*. 2008;59(1):109-16.

79 Rolls BJ, et al. Changing the energy density of the diet as a strategy for weight management. *J Am Diet Assoc*. 2005 May;105(5 Suppl 1):S98-103.

80 Ello-Martin JA, et al. Dietary energy density in the treatment of obesity: a year-long trial comparing 2 weight-loss diets. *Am J Clin Nutr*. 2007 Jun;85(6):1465-77

81 Savage JS, et al. Dietary energy density predicts women's weight change over 6 y.

Am J Clin Nutr. 2008 Sep;88(3):677-84.

82<http://mypyramid.gov/STEPS/nutrientdensefoods.html>.

83 Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, D.C.: National Academies Press, 2002.

84 American Heart Association. Heart and Stroke Statistics –2008 Update. Dallas, TX: American Heart Association, 2008. Accessed at

<http://www.americanheart.org/downloadable/heart/1200078608862HS_Stats%202008.final.pdf>

85 Clarke R. "Dietary lipids and blood cholesterol: quantitative meta-analysis of metabolic ward studies." *British Medical Journal* 1997, vol. 314, pp. 112-117.

-
- 86 Howell WH, et. al. "Plasma lipid and lipoprotein responses to dietary fat and cholesterol: a meta-analysis." *American Journal of Clinical Nutrition* 1997, vol. 65, pp. 1747-1764.
- 87 Armstrong ML, et. al. "Intimal thickening in normocholesterolemic rhesus monkeys fed low supplements of dietary cholesterol." *Circulation Research* 1974, vol. 34, pp. 447-454.
- 88 Walter Willett and Dariush Mozaffarian Ruminant or industrial sources of trans fatty acids: public health issue or food label skirmish? *Am. J. Clinical Nutrition*, Mar 2008; 87: 515 - 516.
- 89 CARDIOVASCULAR DISEASE RISK: Annie Motard-Bélanger, Amélie Charest, Geneviève Grenier, Paul Paquin, Yvan Chouinard, Simone Lemieux, Patrick Couture, and Benoît Lamarche. Study of the effect of trans fatty acids from ruminants on blood lipids and other risk factors for cardiovascular disease *Am. J. Clinical Nutrition*, Mar 2008; 87: 593 - 599.
- 90 Chardigny, Jet al Do trans fatty acids from industrially produced sources and from natural sources have the same effect on cardiovascular disease risk factors in healthy subjects? Results of the trans Fatty Acids Collaboration (TRANSFACT) study *Am. J. Clinical Nutrition*, Mar 2008; 87: 558 - 566.
- 91 The FDA permits such foods to contain less than 0.5 grams of trans fat per serving.
- 92 Some foods bragging "0g trans fat" contain substantial amounts of saturated fat.
93. 9 C.F.R. § 317.362 (e)(1)(2) (1998).
94. 59 Federal Register 26,916-26,917 (1994).
95. 9 C.F.R. § 317.362 (b)(6)(iv) (1998).
96. American Meat Institute. 2002 per capita disappearance data, personal communication, March 2004.
- 97 Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.
- 98 National Restaurant Association (NRA). "Industry at a Glance." Accessed at <http://www.restaurant.org/research/ind_glance.cfm> on April 12, 2002.
- 99 Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.
- 100 Zoumas-Morse C, Rock CL, Sobo EJ, Neuhouser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.
- 101 Pereira, MA, et al. "Fast-Food Habits, Weight Gain, and Insulin Resistance (The CARDIA Study): 15-year Prospective Analysis." *Lancet* 2005, vol. 365, pp. 36-42.
- 102 Thompson OM, et al. "Food Purchased Away from Home as a Predictor of Change in BMI z-score among Girls." *International Journal of Obesity* 2004, vol. 28, pp. 282-289.
- 103 Binkley JK, et al. "The Relation between Dietary Change and Rising U.S. Obesity." *International Journal of Obesity* 2000, vol. 24, pp. 1032-1039.
- 104 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American*

Journal of Public Health 1998, vol. 88, pp. 277-280.

105 McCrory MA, Fuss PJ, Saltzman E, Roberts SB. "Dietary Determinants of Energy Intake and Weight Regulation in Healthy Adults." *Journal of Nutrition* 2000, vol. 130 (Supplement), pp. 276S-279S.

106 McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

107 Zoumas-Morse C, Rock CL, Sobo EJ, Neuhauser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.

108 Clemens LH, et al. "The Effect of Eating Out on Quality of Diet in Premenopausal Women." *Journal of the American Dietetic Association* 1999, vol. 99, pp. 422-444.

109 Schmidt M, et al. "Fast-Food Intake and Diet Quality in Black and White Girls." *Archives of Pediatric and Adolescent Medicine* 2004, vol. 159, pp. 626-631

110 S.A. Bowman and B.T. Vinyard. "Fast-Food Consumers vs. Non-Fast-Food Consumers: A Comparison of Their Energy Intakes, Diet Quality, and Overweight Status." *Journal of the American College of Nutrition* 2004, vol. 23, pp. 163-168.

111 S. Paeratakul, et al. "Fast-Food Consumption among U.S. Adults and Children: Dietary and Nutrient Intake Profile." *Journal of the American Dietetic Association* 2003, vol. 103, pp. 1332-1338.

112 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

113 French SA, Story M, Neumark-Sztainer D, Fulkerson JA, Hannan P. "Fast Food Restaurant Use among Adolescents: Associations with Nutrient Intake, Food Choices and Behavioral and Psychosocial Variables." *International Journal of Obesity* 2001, vol. 25, pp. 1823-1833.

114 McNutt SW, Hu Y, Schreiber GB, Crawford PB, Obarzanek E, Mellin L. "A Longitudinal Study of the Dietary Practices of Black and White Girls 9 and 10 Years Old at Enrollment: The NHLBI Growth and Health Study." *Journal of Adolescent Health* 1997, vol. 20, pp. 27-37.

115 Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

116 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

117 Ma Y, Bertone ER, Stanek III EJ, Reed GW, Hebert JR, Cohen NL, Merriam PA, Ockene IS. "Association between Eating Patterns and Obesity in a Free-living US Adult Population." *American Journal of Epidemiology* 2003, vol. 158, pp. 85-92.

118 McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

119 Jacobson MF, Hurley JG. *Restaurant Confidential*. New York, NY: Workman Publishing, 2002.

120 Burton S, Creyer EH, Kees J, Huggins K. "Attacking the Obesity Epidemic: An Examination of the Potential Health Benefits of

Nutrition Information Provision in Restaurants.” American Journal of Public Health, 2006, forthcoming.

121 Johnson WG, Corrigan SA, Schlundt DG, Dubbert PM. “Dietary Restraint and Eating Behavior in the Natural Environment.” Addictive Behaviors 1990, vol. 15, pp. 285-290.

122 California Center for Public Health Advocacy. Statewide poll on March 20-31, 2007 conducted by Field Research Corporation of 523 registered California voters. Accessed at www.publichealthadvocacy.org/menulabelingpoll.html on June 20, 2007.

123 End Hunger Connecticut. State-wide poll conducted between April 17 and April 23, 2007 by the Center for Survey Research and Analysis at the University of Connecticut of 501 Connecticut residents. Accessed at www.endhungerct.org/PDF/pollresults.pdf on June 20, 2007.

124 Backstrand J, Wootan MG, Young LR, Hurley J. Fat Chance. Washington, DC: Center for Science in the Public Interest, 1997.

125 Jacobson MF, Hurley JG. Restaurant Confidential. New York, NY: Workman Publishing, 2002.

126 Schab DW, Trinh N-H T. Do artificial food colorings promote hyperactivity in children with hyperactive syndromes? A meta-analysis of double-blind placebo-controlled trials. J Dev Behav Pediatr. 2004;25:423-34.

127 Bateman B, Warner JO, Hutchinson E, et al. The effects of a double blind, placebo controlled, artificial food colourings and benzoate preservative challenge on hyperactivity in a general population sample of preschool children. Archives of Disease in Childhood. 2004;89:506-11. McCann D, Barrett A, Cooper A et al. Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomized, double-blinded, placebo-controlled trial. Lancet. 2007(Nov 3);370:1560-7.

128 See www.cspinet.org/new/200806022.html.

129 UK Food Standards Agency. www.food.gov.uk/news/newsarchive/2007/sep/foodcolours.

130 Poulter S. Food firms junk danger additives. Daily Mail. Sept. 8, 2007.
www.dailymail.co.uk/pages/live/articles/news/news.html?in_article_id=480644&in_page_id=1770.

131 www.foodstandards.gov.uk/news/newsarchive/2007/sep/additivesboard.

132 www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0330+0+DOC+XML+V0//EN.

133 www.food.gov.uk/multimedia/pdfs/coloursletter.pdf.

134 Some dyes also have been shown to cause allergic somatic reactions.

135 R. Hingson and D. Kenkel, "Social and Health Consequences of Underage Drinking," in Reducing Underage Drinking: A Collective Responsibility, Background Papers (Washington, DC: The National Academies Press, 2004).

136 Grant, BF. Estimates of US children exposed to alcohol abuse and dependence in the family. American Journal of Public Health, Vol 90, Issue 1, pp.112-115.

137 Brown, S.A., and Tapert, S. F. Health consequences of adolescent alcohol involvement. In: National Research Council and Institute of Medicine, Bonnie, R.J., and O'Connell, M.E., eds. Reducing Underage Drinking: A Collective Responsibility. Washington, DC: National Academies Press, 2004. pp. 383-401.

138 Brown, Sandra A. et al. "A Developmental Perspective on Alcohol and Youths 16 to 20 Years of Age." Pediatrics Vol. 121 Supplement April 2008, pp. S290-S310.

139 Medina KL, Schweinsburg AD, Cohen-Zion M, Nagel BJ, & Tapert SF (2007). "Effects of alcohol and combined marijuana and alcohol use during adolescence on hippocampal volume and asymmetry." *Neurotoxicology & Teratology*, 29, 141-152.

140 Zeigler, Donald W. et al. "The neurocognitive effects of alcohol on adolescents and college students." *Preventive Medicine*, Volume 40, Issue 1, January 2005, Pages 23-32.

141 Table 2. Projections of the Population by Selected Age Groups and Sex for the United States: 2010 to 2050 (NP2008-T2). Source: Population Division, U.S. Census Bureau. Release Date: August 14, 2008.

142 NIAAA Alcohol Alert, No. 40, April 1998.

143 NIAAA Alcohol Alert, No. 74, January 2008.

144 See cited research in: Brody, Jane E. "Query for Aging Patients: How Much Do You Drink?" *New York Times*, Section D pg.7. December 16, 2008.

145 10th Special Report to Congress, pages 3, 240.